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Case Report

Management of a Complicated Case of Cervico-Vaginal Prolapse in Crossbred Cow— A Case Report

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ABSTRACT

A case of cervico-vaginal prolapse in a 6 year old cross bred cow, in second parity was successfully managed in the veterinary hospital. The case was complicated due to several lacerations and bleeding points from the prolapsed mass which was hanging out from the last 18 hrs., was difficult to reposition in its natural anatomical position. Lacerations and bleeding points were sutured using absorbable suture and the prolapsed mass was manually repositioned and secured in vagina using Buhner's sutures. Postoperative antibiotic, anti-inflammatory treatment and antiseptic dressing stabilized the condition of the animal. Mineral mixture was prescribed as a feed supplement to improve the condition of animal and prevent further occurrence of the prolapse.

Keywords: Vaginal prolapse, cervico-vaginal prolapse, vaginal laceration, Buhner's sutures

Prolapse of cervix and vagina is a complication of mature ruminants which usually occur in pregnant animals but also occasionally observed in the post partum non pregnant animals (Noakes *et al.*, 2009). The incidence of prolapse of vagina, cervix and uterus accounts to about 2% in cows (Patterson *et al.*, 1981). Prolapse of vaginal floor, lateral wall and roof occurs through the telescopic eversion of vagina through the vulva, exposing vaginal mucosa. The prolapsed mass is liable to trauma and bleeding making the case complicated if severe lacerations occur and the mass gets swollen and non-pliable, making its reposition to its natural position difficult. Prompt treatment is needed to manage such cases as delay may make the condition of the mass more fragile and grave prognosis. Various surgical and non-surgical management have been successfully tried for retention of the prolapsed mass to its anatomical position (Kapadiya *et al.*, 2015, Kumar, 2015; Anil *et al.*, 2017; Umesh *et al.*, 2016; Reshma and Shankare gowda, 2018). The presented case was a complicated case having severe lacerations and bleeders due to trauma in the prolapsed vaginal mass, which was successfully managed surgically.

Case History and Observations

A crossbred cow of about 6 years of age in her second parity and non-pregnant state was brought to the Teaching Veterinary Clinic, F.V.Sc. and A.H., R.S. Pura, Jammu with a prolapsed mass of about a football size hanging from the vagina since the last 18 hrs. The case was handled by the local veterinary practitioners who failed to reposition the mass back to the vagina. On clinical observation, the rectal temperature of the cow was recorded,

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98.5°F, the animal was severely straining and had bleeding from the prolapsed mass (Fig. 1). On closer examination of the prolapsed mass, several bleeding lacerations were observed on the lateral and ventral side, and the prolapsed mass was edematous and fragile.

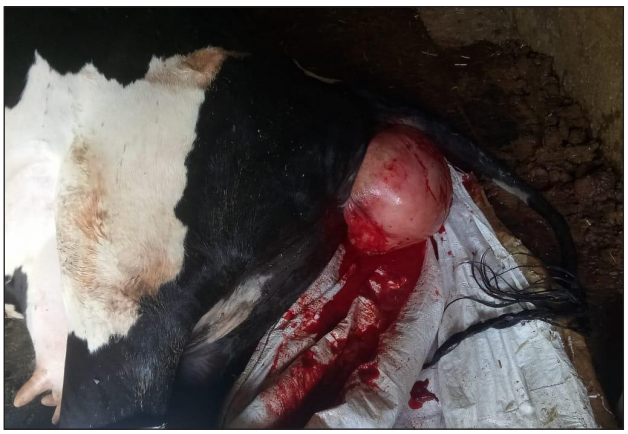

Fig. 1: Vaginal prolapsed with lacerations and bleeding

Treatment

The cow was secured standing in a travis and caudal epidural anesthesia was given using inj. 2% lignocaine (5 ml) at the first intercoccygeal space. The prolapsed mass was manually lifted above the level of ischial arch and urethra was catheterized to evacuate the urinary bladder. The whole mass was washed using potassium permanganate solution (1:1000) and all laceration bleedings were sutured using synthetic absorbable suture (Vicryl No.2-0). Ice cold water and Pop In spray (Natural Remedies) was liberally applied on the mass to reduce the volume (Fig. 2).

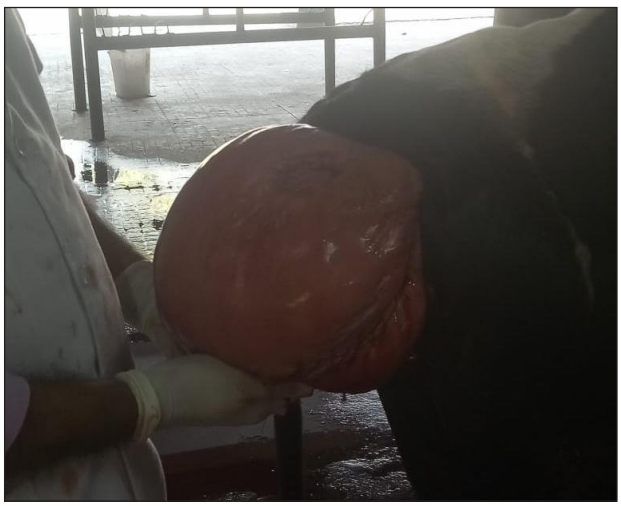

Fig. 2: Prolapsed mass after suturing lacerations

For repositioning, the mass was first pushed from the lateral side and then in the middle and the roof using hand fist pressure. Repositioning was successful after 4 attempts, and then the vagina was packed with sterile surgical drape cloth to check further bleeding. Cow was promptly treated with haemostiptic (inj. Revici, 15 ml, I/V), antibiotic (Inj. Enrocin, 15 ml, I/M), NSAID (Inj. Megludyne, 7ml I/M), Fluid (Inj DNS, 5 L, I/V) and calcium borogluconate (Mifex 200 ml, I/V) to stop bleeding, sepsis, swelling and to prevent shock to the cow. The vulva was sutured after 30 minutes (on completing fluid therapy) by Buhner's purse string suture using (infusion pipe as thread) after removal of packing cloth from the vagina and ensuring no bleeding (Fig. 3). The case was relieved with the 5 days prescription of anitibiotic (Inj. Enrocin 15 ml, I/M), anti-inflammatory (inj. Melonex, 15 ml, I/M), mineral mixture feeding and antiseptic dressing (povidone iodine lotion) on the vulvar suture. Telephonic follow-up of the case after 5 days reported stable condition of the cow.

Fig. 3: Retention of prolapsed mass by Buhner's purse string suture

DISCUSSION

Prolapse of reproductive tract in ruminants is an emergency and needs prompt treatment as the prolapsed mass is liable to trauma and poor prognosis (Yimer *et al.*, 2016). To secure the prolapsed mass from possible injuries, bleeding and sepsis, prompt repositioning is needed. In absence of suitable technical help most of the cases in the referral clinic comes after 6-10 hrs of delay.

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Prolapse of vagina in non-preganat state is rare (Roberts, 1986; Yotov *et al*., 2013). The presented cow was non-pregnant and had history of difficult parturition at about 6 months back. Mineral imbalances may be one of the causes of vaginal prolapse (Tyagi and Singh, 2002). So, mineral mixture was prescribed to supplement nutrition to prevent further occurrence of the prolapse. Lack of myometrial tone and increased abdominal pressure may ensue vaginal prolapse (Kapadia *et al*., 2015). Retention suture was applied to prevent the reoccurrence of prolapse till the edema and swelling subsides and the reproductive tract involutes to its normal state. Buhner's buried purse string suture have been successful in retention of cervico-vaginal prolapse (Reshma and Shankare gowda, 2018). Since there was complications in the present case due to lacerations and bleeding, haemostiptics and antibiotics were given to prevent bleeding and further infections and sepsis. The present case records successful repositioning and stabilizing a complicated case of cervico-vaginal prolapse in a crossbred cow which was retained to its normal anatomical position using Buhner's purse string suture.

CONCLUSION

The presented case records surgical emergency and complications observed in the delayed case of cervico-vaginal prolapse in cow. Suturing of lacerations, reposition and retention of the prolapsed mass stabilized condition and saved the life of cow.

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